

## WHAT IS CLAIMED IS:

1. A method for manufacturing optical fiber with enhanced photosensitivity comprising the steps of:
  - forming a molten layer of glass; and
  - drawing a fiber from said molten layer of glass at a temperature of between about 1900°C and 1995°C.
2. The method according to claim 1, where in said temperature is between 1975°C and 1995°C.
3. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 2, wherein said drawing step further comprises drawing said fiber at a tension between 100 gm and 250 gm.
4. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 2, wherein said molten layer is manufactured in accordance with a chemical vapor deposition process.
5. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 4, wherein said forming step comprises forming glass layers corresponding to a core and a cladding.
6. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 2, wherein said molten layer is manufactured in accordance with a modified chemical vapor deposition process.
7. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 2, further comprising the step of doping said optical fiber along a core portion.

8. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 7, wherein said doping step comprises doping the core portion with germanium.

9. The method of manufacturing optical fibers with enhanced photosensitivity according to claim 7, wherein said doping step comprises doping the core portion with boron.

10. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 3, wherein said draw tension remains constant throughout said drawing step.

11. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 2, wherein said drawing step comprises drawing said optical fiber at a temperature between about 1980°C and 1990°C.

12. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 2, further comprising the step of writing a grating on said optical fiber by exposing said fiber to ultraviolet radiation.

13. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 11, wherein said ultra violet radiation is between about 193 and 248 nm in wavelength inclusive.

~~14.~~ An improved method for manufacturing optical fiber with enhanced photosensitivity of the type wherein said fiber is drawn from a molten layer of glass at a predetermined temperature and a predetermined tension and at a predetermined rate, wherein the improvement comprises the step of:

lowering said temperature that said fiber is driven at between about 2% and 3% while increasing said preselected draw tension.

15. The improved method for manufacturing optical fiber with enhanced photosensitivity according to claim 14, wherein said predetermined temperature is between about 2025°C and 2045°C.

16. The improved method for manufacturing optical fiber with enhanced photosensitivity according to claim 14, wherein said temperature is lowered to between about 1975°C and 1995°C.

17. The improved method for manufacturing optical fiber with enhanced photosensitivity according to claim 14, wherein said fiber draw rate is increased to a tension wherein the draw rate at said lowered temperature will substantially equal said predetermined rate.

18. The improved method for manufacturing optical fiber with enhanced photosensitivity according to claim 14, wherein said molten layer of glass is manufactured in accordance with a modified chemical vapor deposition process.

~~19.~~ A method for manufacturing optical fiber with enhanced photosensitivity comprising the step of:

drawing said fiber from a molten layer of glass at a temperature of about 1985°C. and a tension of about 200 gm.

20. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 19, wherein said molten layer is manufactured in accordance with a chemical vapor deposition process.

21. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 19, wherein said molten layer is manufactured in accordance with a modified chemical vapor deposition process.

22. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 19, further comprising the step of doping said optical fiber along a core portion.

23. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 22, wherein said step of doping comprises doping said core portions with germanium.

24. The method of manufacturing optical fiber with enhanced photosensitivity according to claim 22, wherein said doping step comprises doping the core portion with boron.

25. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 19, further comprising the step of writing a grating on said optical fiber by exposing said optical fiber to ultraviolet radiation.

26. The method for manufacturing optical fiber with enhanced photosensitivity according to claim 24, wherein said ultraviolet radiation is between about 193 and 248 nm in wavelength inclusive.

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